

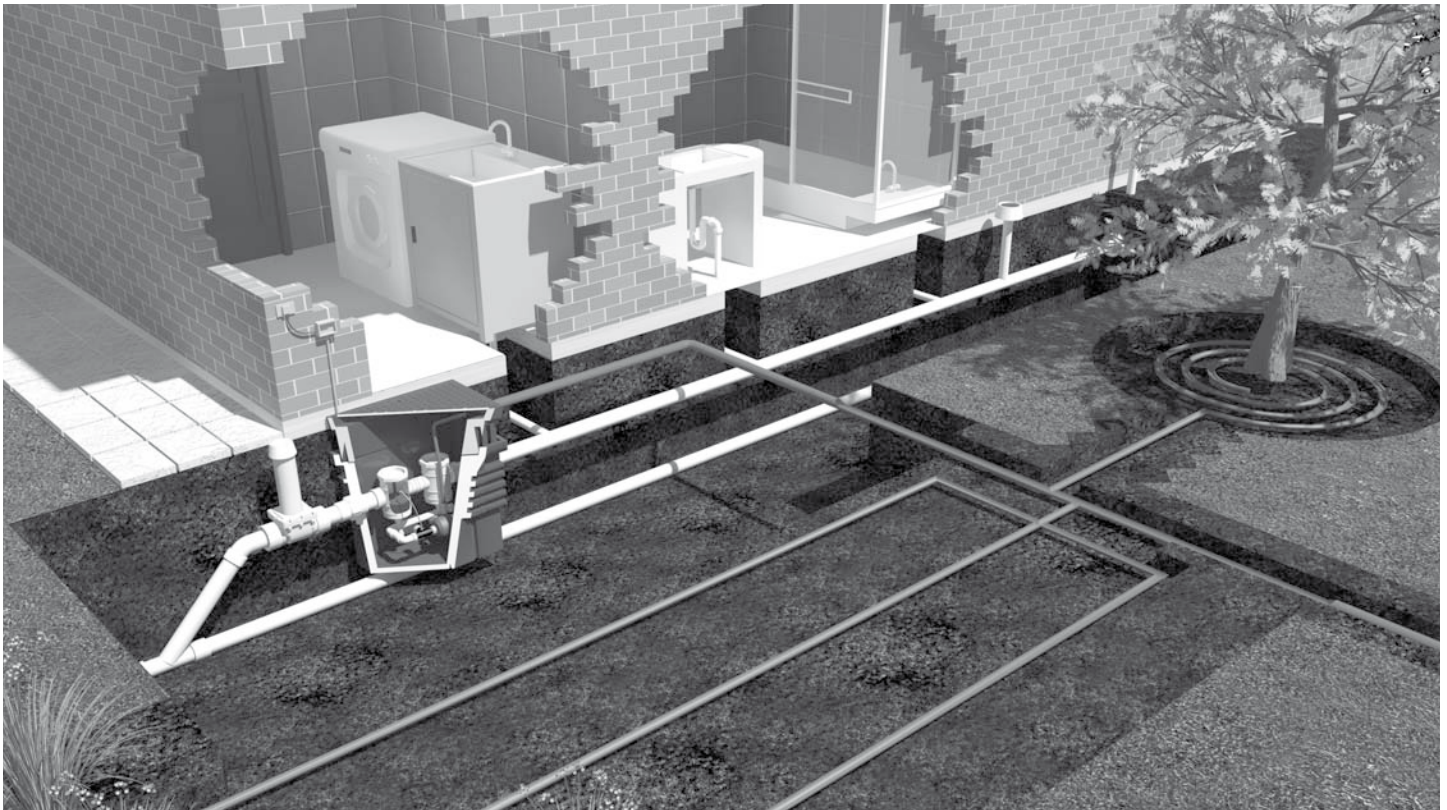


001 System

GreyFlow Below Ground Series

USER'S MANUAL

Introduction • Installation • Maintenance



Grey Water reuse system



- ☐ Grey Flow 001 Builder's Kit (UP-GF-001-BK)
- ☐ Grey Flow 001 Finishing Kit standard pump (UP-GF-001-FK)
- ☐ Grey Flow 001 Finishing Kit with large pressure pump (UP-GF-001-FK-LP)

"moving water"

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INTRODUCTION:

Congratulations! You have taken an important step towards an environmentally friendly living with your purchase of the Universal **GREY FLOW 001** Grey Water diversion and reuse system.

The **GREY FLOW 001** System is an 'Entire' Grey Water diverter that promotes a cleaner and healthier environment with its innovative 'no holding tank' design.

The **GREY FLOW 001** System is especially designed for in-ground installation with Grey Water diverted through the system for use in the garden through sub-surface irrigation. The **001** System is suitable only for installation where the sewer pipe is between 0 to 2 feet from the ground level.

Please Note: The 001 System is NOT suitable for the Grey Water from the kitchen sinks.

Instant diversion to sewer by:

1. Electrical switch (remote control devices are also available)
2. Rain Switch
3. Soil Moisture sensor switch

The soil moisture sensor switch will help to avoid Grey Water run-off and trigger an automatic shut down of the system when the soil is saturated. *Please check with authorised dealer for ideal moisture sensor switch to meet your requirements.*

Manual diversion of the Grey Water can be achieved by using the supplied rubber plugs to seal the diversion holes inside the inter-ceptor unit (ref. diagrams overleaf).

The **GREY FLOW 001** can be used in conjunction with Water Rotor valve indexer to achieve water distribution over a number of stations (up to 6).

The **GREY FLOW 001** system has Watermark and IAPMO UPC certifications, is approved for use in all states and could be considered for government's Grey Water rebates wherever available.

DEFINITION:

Grey Water is wastewater generated from domestic activities such as laundry, shower, and bathing, which can be recycled on-site for uses such as landscape irrigation and constructed wetlands. This wastewater contains no fecal matter (human feces). Grey Water differs from water from toilets which is designated sewage or blackwater to indicate it contains human waste.

REQUIREMENTS:

- The **Grey Flow 001** is not suited to conditions where the invert level of the Grey Water pipe is lower than 2 feet below ground (if lower than 2 feet use PS model instead)
- The drip-line must be kept 4" below mulch or soil (check for Local, State, Municipal & Council laws and regulations)
- 110 volts power supply should be available
- PVC/ABS plumbing parts to be installed by a license plumber
- Minimum garden area required applies (REF. TABLE 1.0)
- The **Grey Flow 001** must be turned off during wet conditions and at any sign of accumulation or run-off
- All set-back distances for the irrigation system must be in accordance to the local regulations

TABLE 1.0

Number of bedrooms in the house	Assumed number of people in the house	Quantity of Grey Water reuse in Gallons/day	Soil Type	Minimum garden area to irrigate in Square Feet	Recommended irrigation area in Square Feet
2	3	75	Sand	90	230 & 590
			Loam	130	
			Clay	185	
3	4	100	Sand	115	320 & 790
			Loam	180	
			Clay	230	
4	5	125	Sand	160	395 & 1050
			Loam	225	
			Clay	320	
5	6	150	Sand	185	460 & 1180
			Loam	265	
			Clay	370	
6	7	175	Sand	220	540 & 1380
			Loam	320	
			Clay	440	

INSTALLATION: PARTS LIST:

The Grey Flow 001 builder's Kits (UP-GF-001-BK) are supplied with:

- 1 Fully fitted **Grey Flow 001** main pit with PVC interceptors and suction manifold
- 1 Extra holding bracket to be used only when additional extension is needed
- 1 Additional pit extension 12 3/4" high supplied in 4 panels
- 2 6" screw-in PVC caps
- 1 Reinforced plastic lockable lid
- 2 Filters with bottom screw plugs

The Grey Flow 001 Finishing Kits (UP-GF-001-FK or UP-GF-001-FK-LP) are supplied with:

- 1 Oil cooled, thermal protected, submersible pump to be connected as a centrifugal pump
- 2 Assembled 1" check valves
- 1 Fully fitted float switch
- 1 Control box
- 2 Spare filters
- 1 Corflute Grey Water warning sign

**Grey Water Warning Sign
to be visible at all time**

The Grey Flow Complete drip-line irrigation Kits (UP-GF-DL-CK) are supplied with:

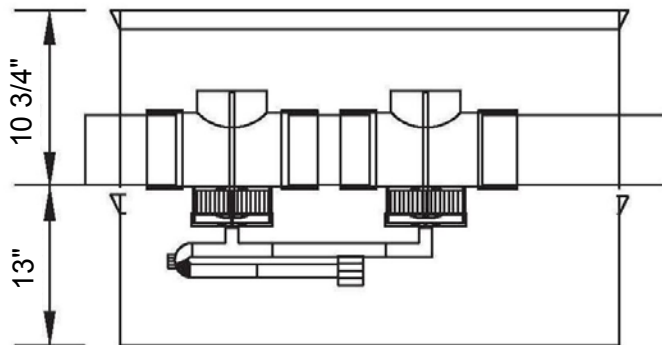
- 1 330 feet roll of purple drip-line with integrated large flow (2.2 Gal/Hr) drippers @ 12" spacing
- 25 Drip-line fittings
- 1 Punch tool
- 1 82 feet roll of 1" Low Density purple Polypipe with barb fittings to suit

The following optional items are also available for purchase on-line or through a retail store:

- Approved Back Flow valve
- Grey Flow Self-Cleaning Mechanism (UP-GF-SCM) (helps reducing frequency of filter cleaning from once a month to once or twice a year depending on usage)
- GF Rotor 6 stations (UP-GF-RT6) (allows for sequential volumetric distribution of the Grey Water into more than one zone)
- Grey Flow Station Drip-line Kit (UP-GF-DL-SK) (for use in additional drip-line stations)

INSTALLATION: PARTS LIST:

Full System Parts List



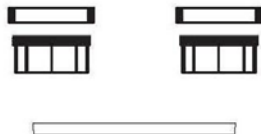
- 1 Fully fitted Grey Flow 001 Builders Kit (included dual interceptor with one set of capped filters and a PVC suction manifold)



- 1 Reinforced plastic lockable lid



- 1 Additional pit extension 12 3/4" high supplied in 4 panels to be assembled and fitted if required



- 2 6" screw-in PVC caps

- 1 Extra holding bracket to be used only when additional extension is used



- 1 Oil-cooled thermal protected, submersible pump to be connected as a centrifugal pump assemblies with 2 x 1" brass check valves & 1" discharge manifold



- 1 Fully fitted float switch



- 1 Control box



- 2 Spare filters

Grey Water Warning Sign
to be visible at all time

- 1 Corflute Grey Water warnong sign

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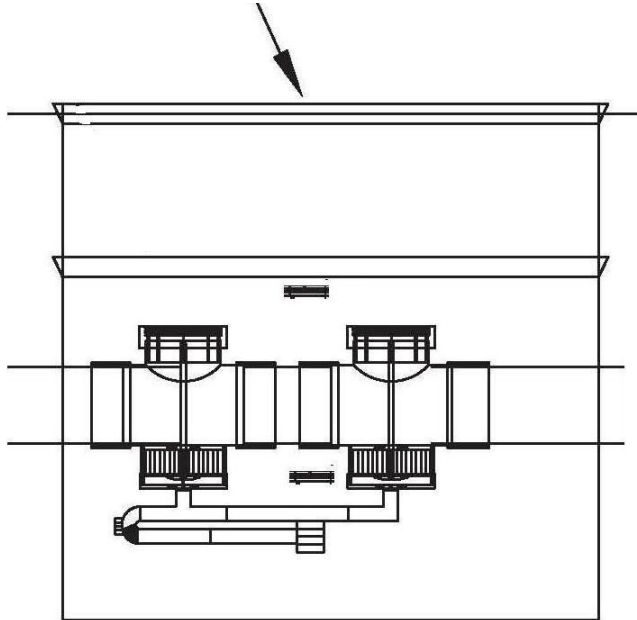
INSTALLATION:

IMPORTANT DO'S AND DON'TS

The Grey Flow 001 model is not suited to conditions where the invert level of the Grey Water pipe is lower than 2 feet below ground.

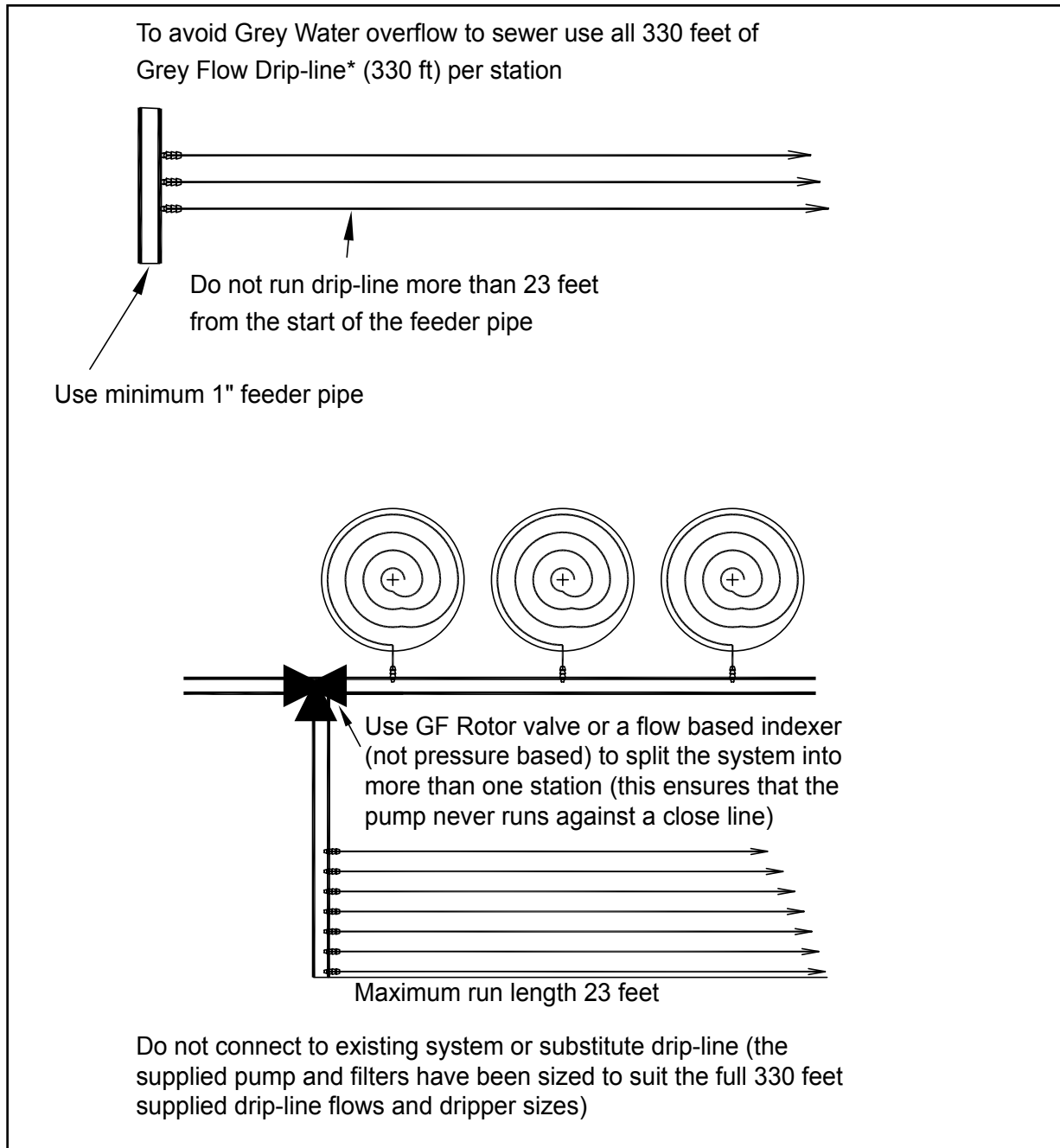
If the Grey Water pipe is lower than 2 feet below ground use the Grey Flow PS model instead.

Do not use more than the one extra extension
supplied with the system



INSTALLATION:

IMPORTANT DO'S AND DON'TS

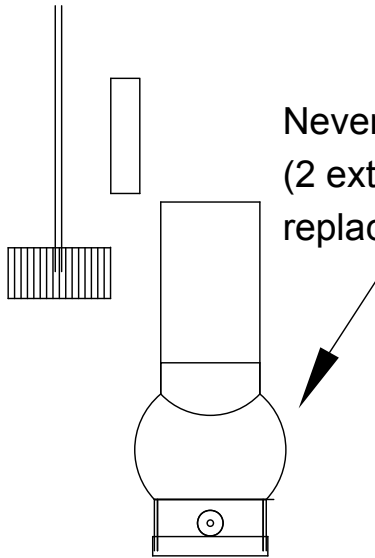


* If non Grey Flow Drip-line is used the warranty may be void.

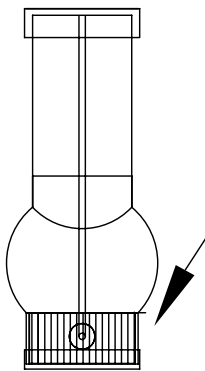
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INSTALLATION:

IMPORTANT DO'S AND DON'TS



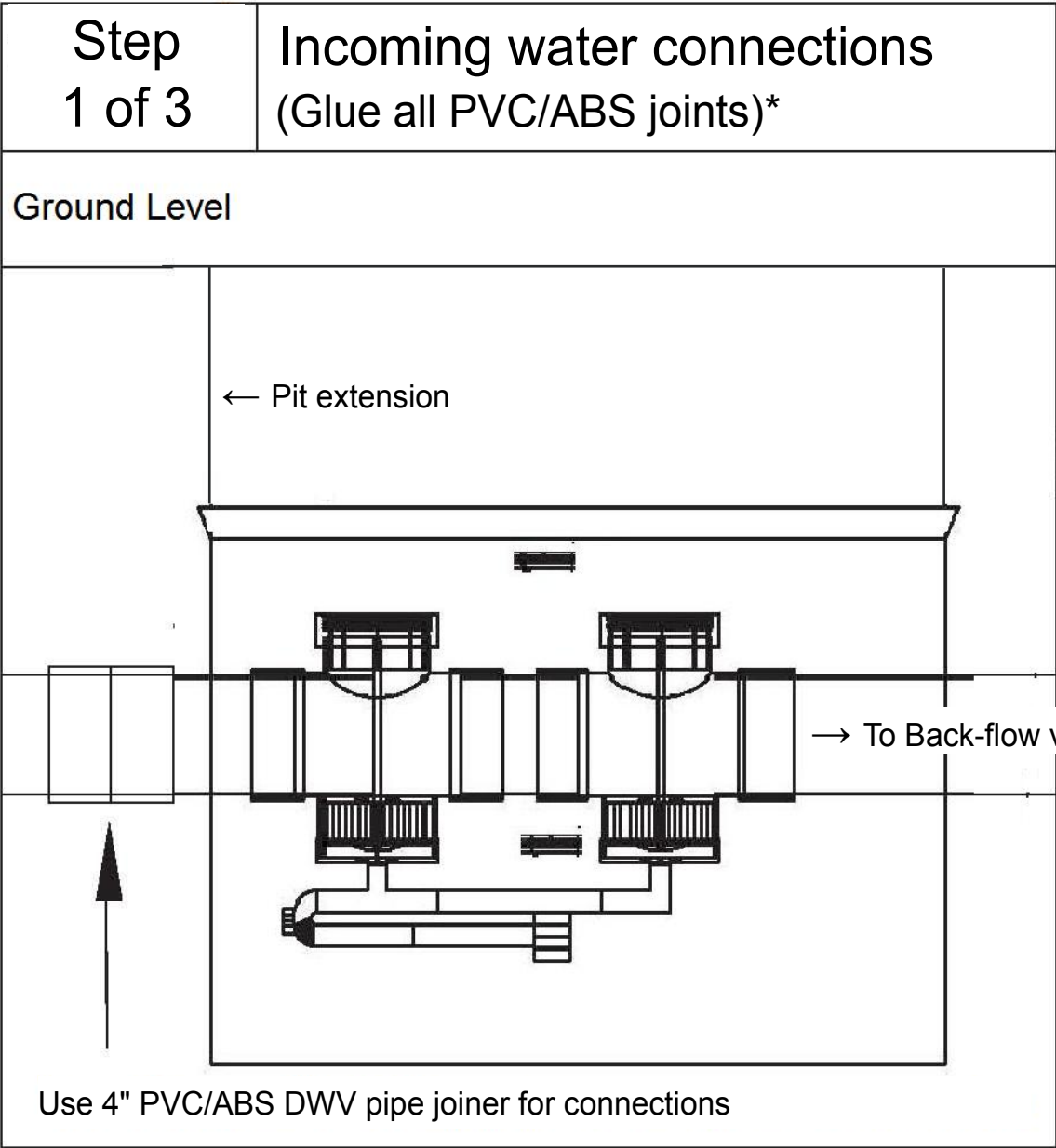
Never leave the interceptor trap without filter
(2 extra filters have been provided for instant
replacement at cleaning time)



Make sure to insert the filters all the way
down to the bottom of the interceptor trap
(the filter 1/2" riser should be standing vertically)

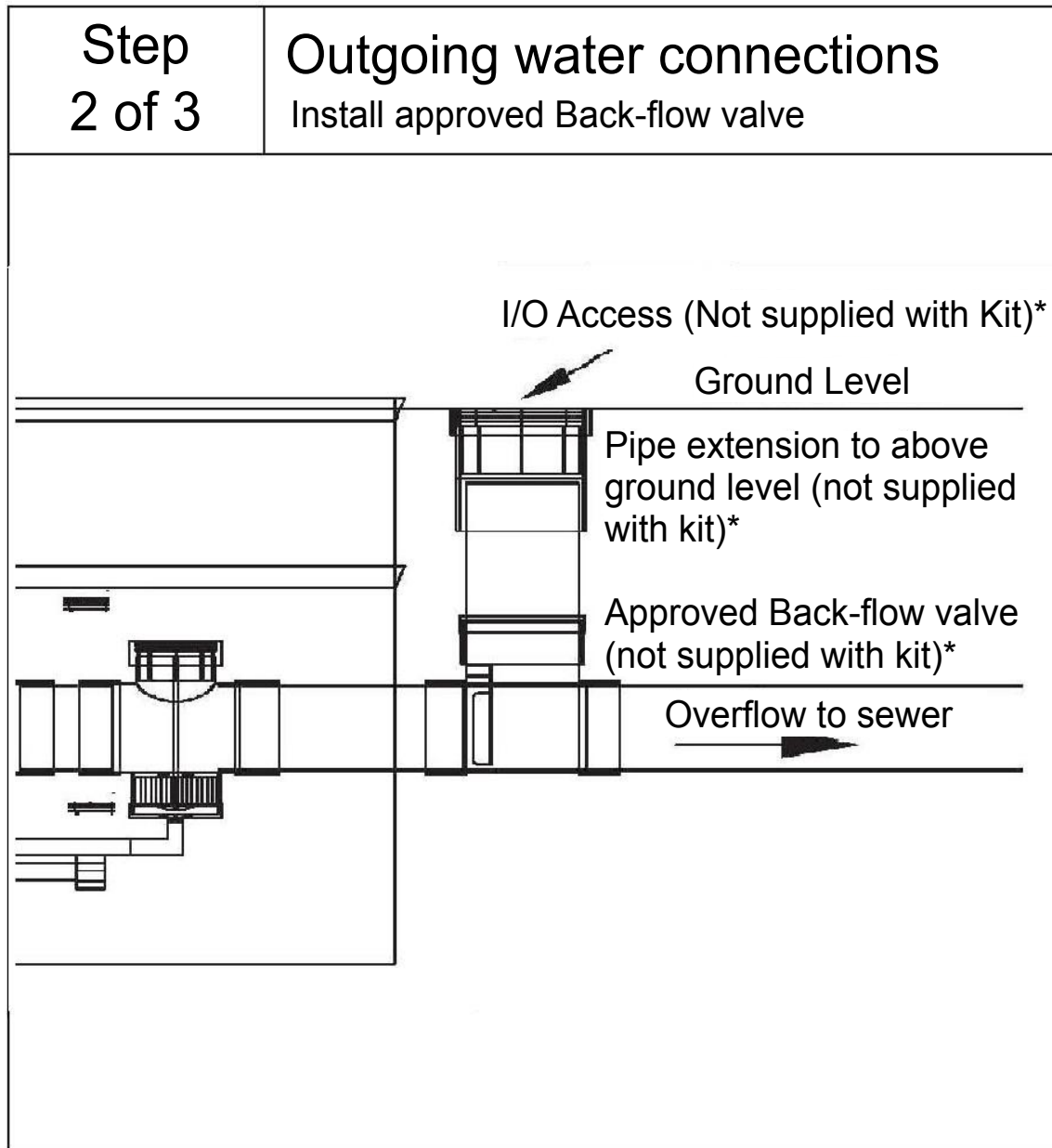
INSTALLATION - STEP ONE:

PLUMBING INSTALLATION



* PVC/ABS glue not included

PLUMBING INSTALLATION



* to be purchased separately

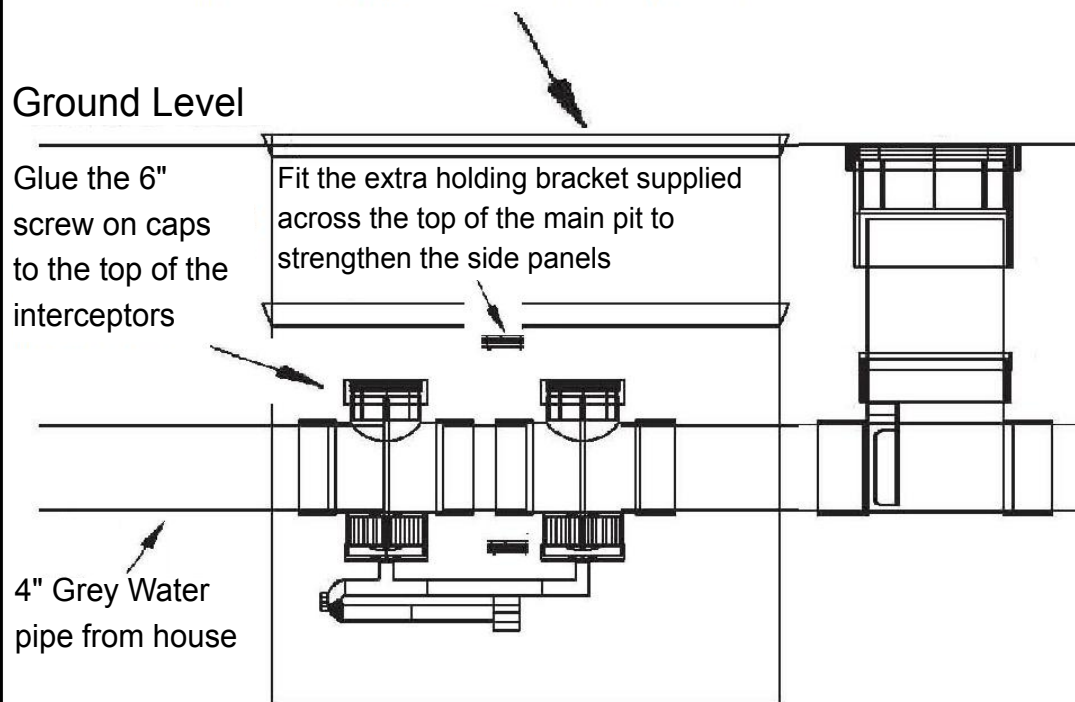
INSTALLATION - STEP ONE:

PLUMBING INSTALLATION

Step
3 of 3

Pit extension
to ground level

1. Cut the additional pit extension panels to size
2. Assemble the panels and fit over the main pit
3. Fasten the additional extension to the main pit using at least 8 screws
4. Seal all joints and gaps with silicon or expansion foam



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INSTALLATION - STEP ONE:

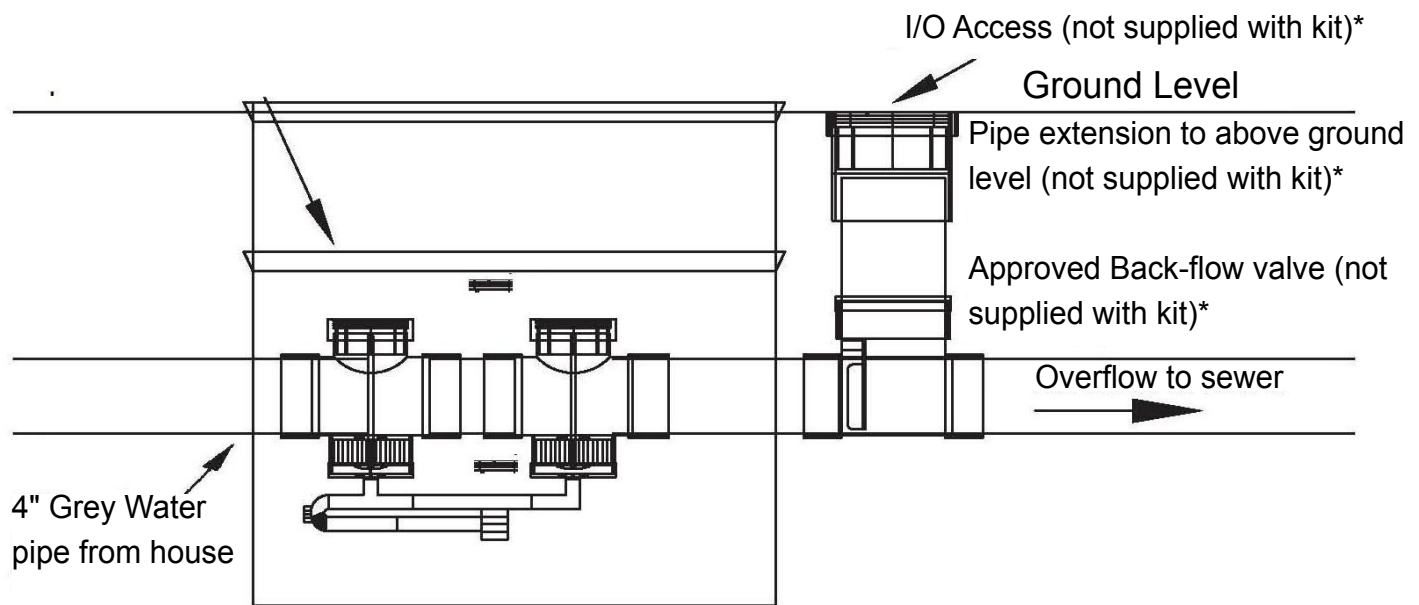
PLUMBING INSTALLATION

(All plumbing work must be performed by a licensed plumber)

The **Grey Flow 001** model is not suited to conditions where the invert level of the Grey Water pipe is lower than 2 feet below ground.

Do not use more than the one extension supplied. If the Grey Water pipe is lower than 2 feet below ground use the Grey Flow PS model instead.

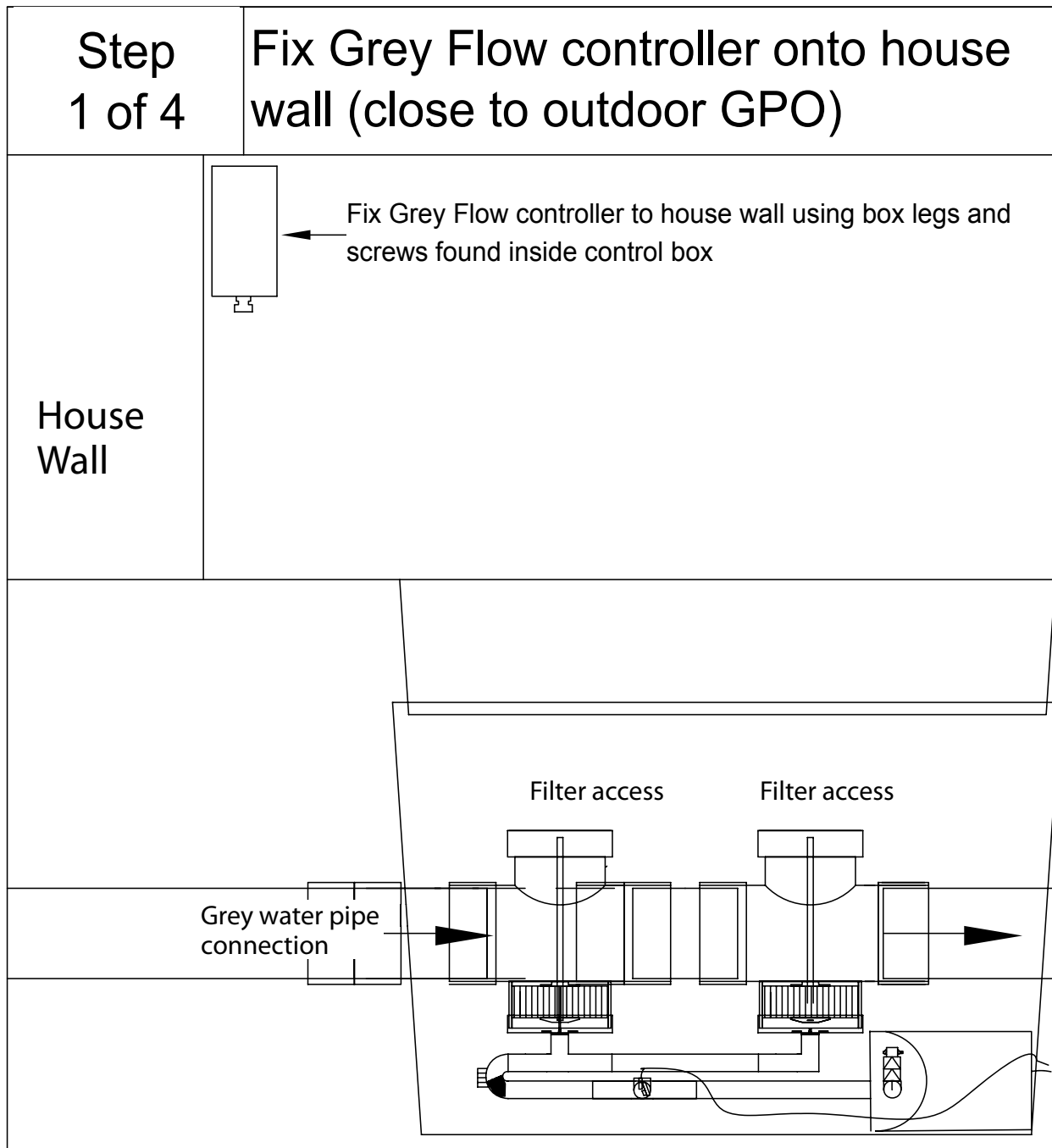
1. Install the main pit in the below ground hole, connect and glue to incoming Grey Water pipe and sewer overflow (the interceptors in the pit must be kept in vertical position)
2. Glue 6" screw-in on caps to the top of the interceptors (keep filters in the vertical position)
3. If ground level is still higher then the top of the main pit -
 - 3.1 Fit extra holding bracket across the top of the main pit to strengthen the side panels
 - 3.2 Cut the additional pit extension panels to size
 - 3.3 Assemble the panels and fit over the main pit
 - 3.4 Fasten the additional pit extension to the main pit with at least 8 screws
 - 3.5 Seal all joints and gaps with silicon paste or expansion foam so as to keep backfill out of the pit



* to be purchased separately

INSTALLATION - STEP TWO:

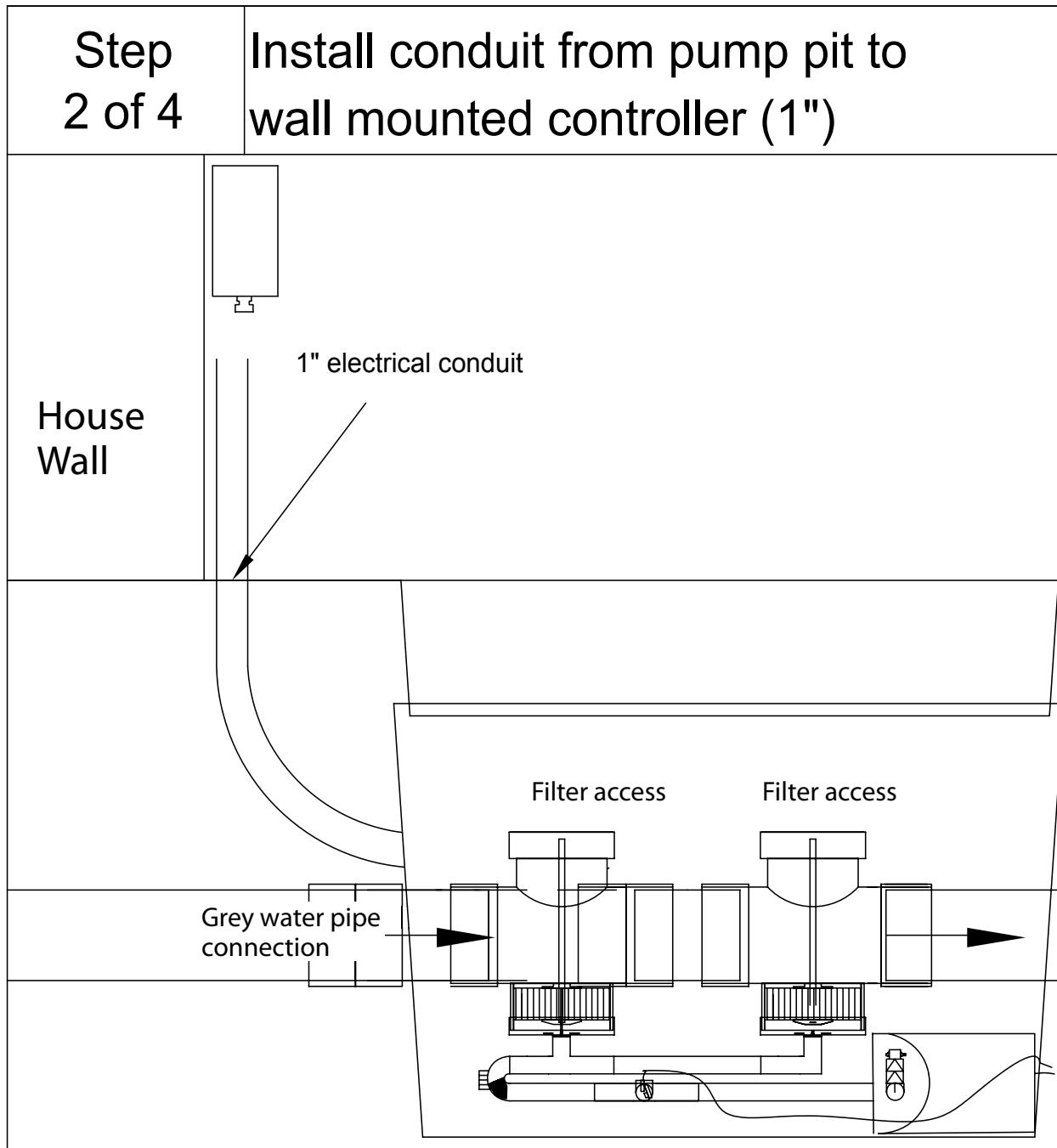
INSTALLING THE GREY FLOW ELECTRICAL COMPONENTS



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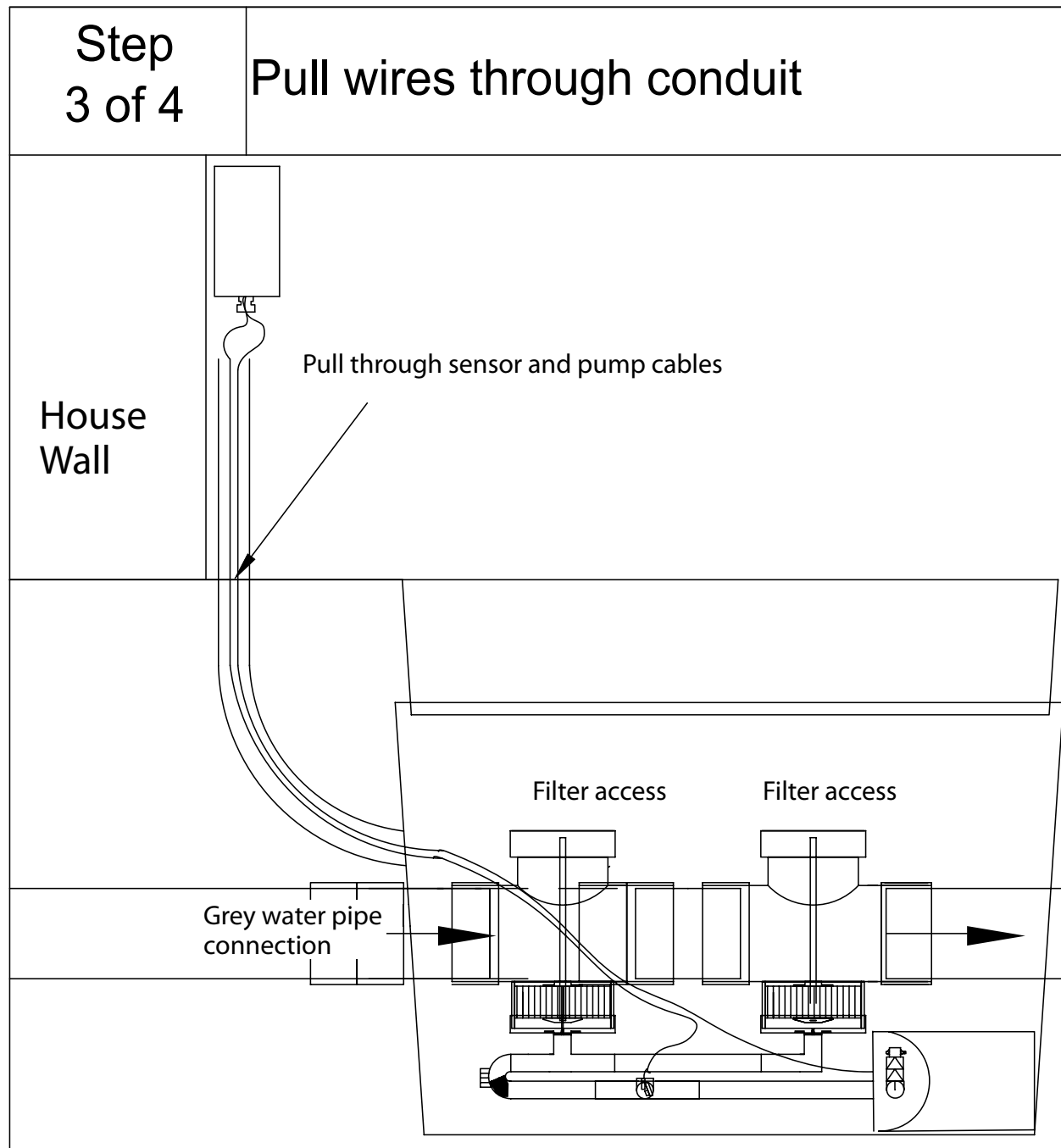
INSTALLATION - STEP TWO:

INSTALLING THE GREY FLOW ELECTRICAL COMPONENTS



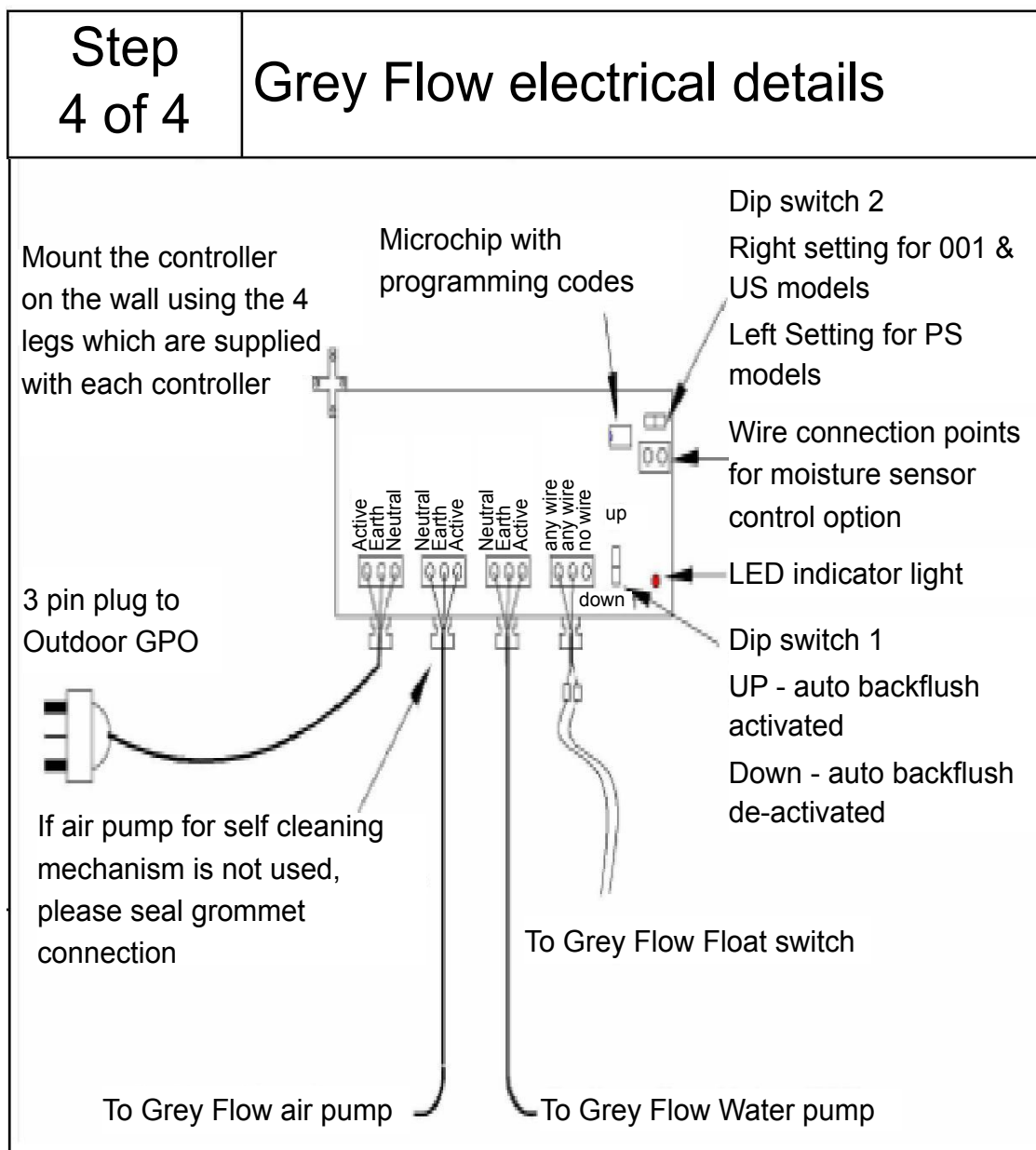
INSTALLATION - STEP TWO:

INSTALLING THE GREY FLOW ELECTRICAL COMPONENTS



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GREY FLOW ELECTRICAL DETAILS



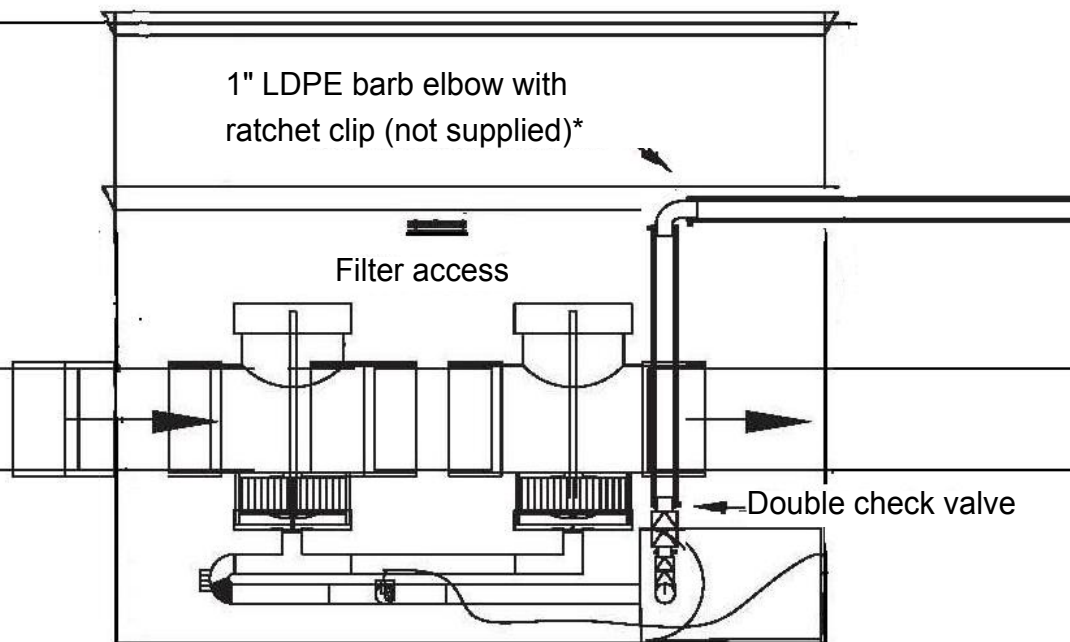
INSTALLATION - STEP THREE:

INSTALLING THE GREY FLOW WATERING SYSTEM

Step
1 of 2

Connecting grey water supply pipe
to pump discharge

Ground level

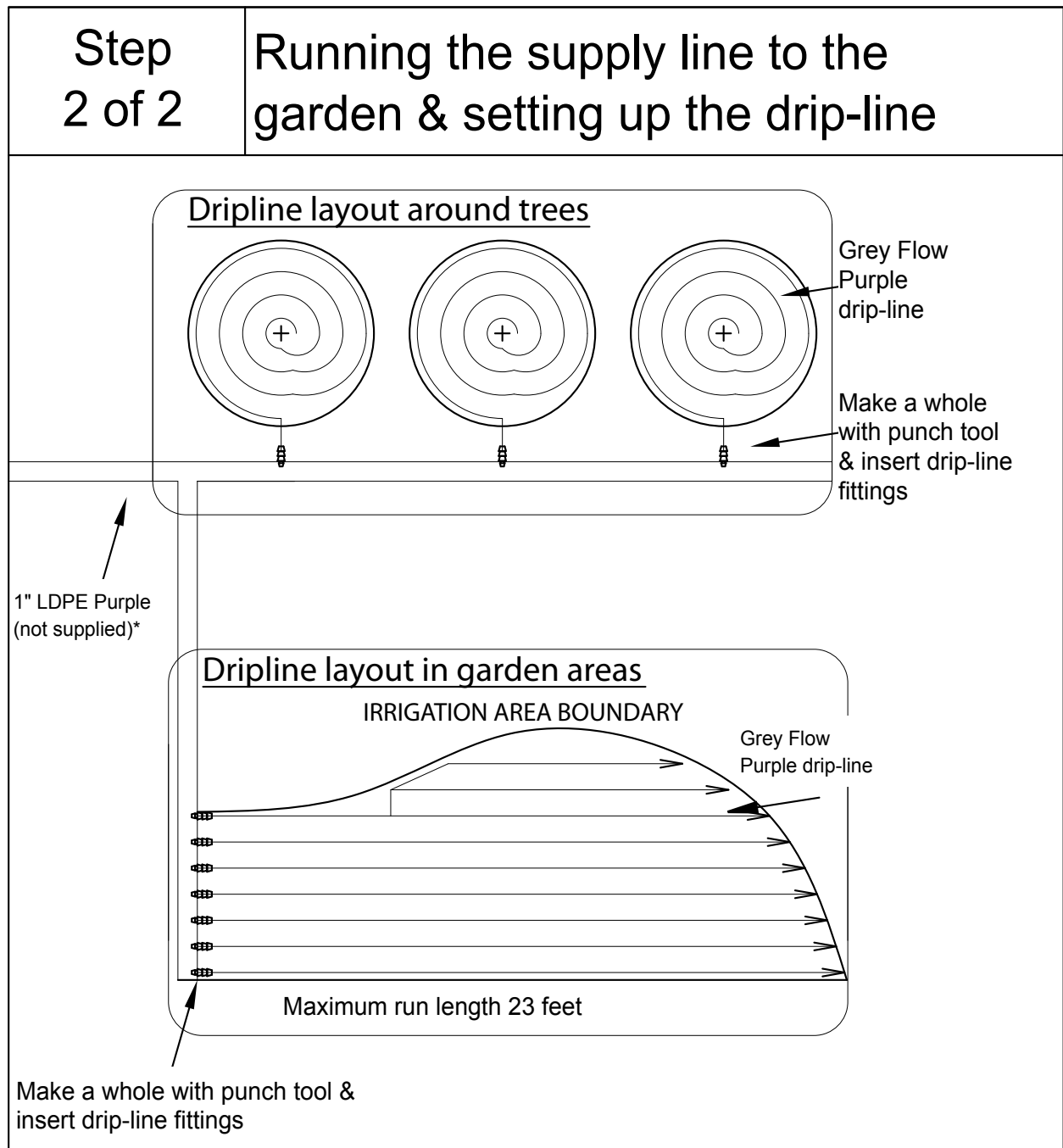


* to be purchased separately

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INSTALLATION - STEP THREE:

INSTALLING THE GREY FLOW WATERING SYSTEM



* to be purchased separately

INSTALLATION - STEP THREE:

INSTALLING THE GREY FLOW WATERING SYSTEM

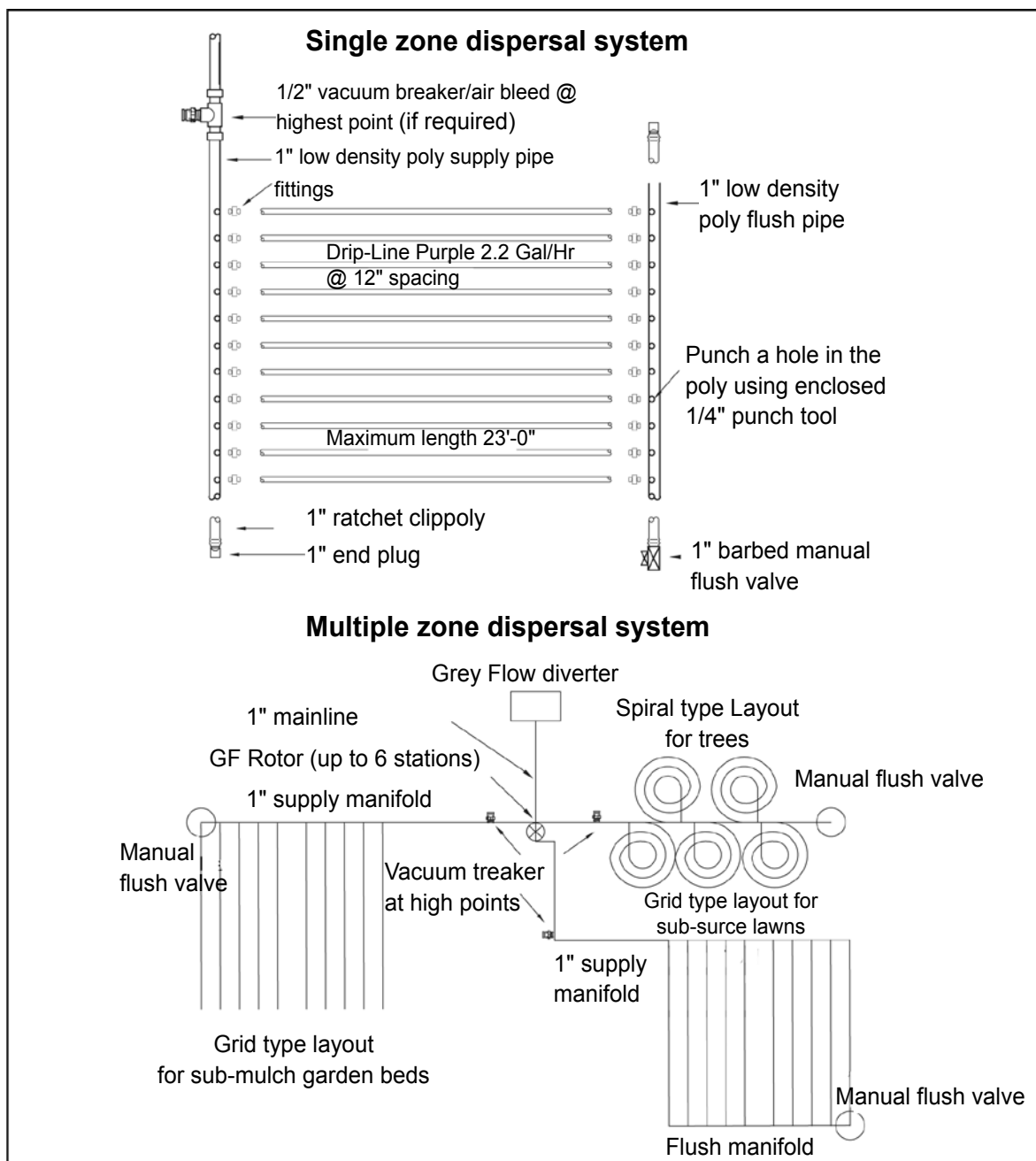
Drip irrigation system layout

The installation of the irrigation part of the Grey Flow must follow the following sequence and procedure.

1. For each zone lay the 1" polypipe as header line on the ground across the wider section of the garden bed and not further than 33 feet away from the end of the bed. Close the end of the 1" header line with end plugs.
2. Connect the Start Connectors by punching a whole in 1" polypipe using the 0.3" punch tool supplied. The smallest end of the start connector is then inserted into the hole made in the polypipe.
3. Connect to the start connectors the Grey Flow drip-line and lay it above ground in one of the three layout models (grid, spiral or s-curve). Always keep the drip-line as close to the plant as possible. Leave the end of the drip-line open.
4. Stake the Grey Flow drip-line to the ground every 3'-4".
5. Connect the end of the drip-lines into a 1" Polypipe flush manifold.
6. Insert a barbed flush valve into the flush manifold at its lowest point.
7. Flush thoroughly the whole system by running tap water through you shower, basin, or trough.
8. Cover the Grey Flow drip-line with a minimum of 4" thickness of soil or mulch.

INSTALLATION - STEP THREE:

RECOMMENDED LAYOUT OF THE GREY FLOW DRIP-LINE



TROUBLESHOOTING GUIDE

A. Normal Operating Sequence:

1. Controller LED light is off (no power to the controller)
2. Controller LED light is on (no water is detected)
3. Controller LED light is flashing and the pump is on (water has been detected and the system is in operating mode)

B. The controller is connected to power and the LED light is off :

1. *Potential Cause* - No power at power supply point. *Action* - Check power supply.
2. *Potential Cause* - Fuse has blown. *Action* - Replace fuse (you need a 3.15 amp slow blow fuse – there are available at your local electronic store).
3. *Potential Cause* - Controller is defective. *Action* - Contact your local Grey Flow supplier with proof of purchase.

C. The controller LED light is on, water is running, but the pump is off :

1. *Potential Cause* - The plugs are still attached to the filters and do not allow the water to reach the sensor switch. *Action* - Unscrew and remove plugs from filter base and reinstall filters in their original location.
2. *Potential Cause* - The filters are clogged. *Action* - Clean filters and reinstall filters in their original location.
3. *Potential Cause* - The sensor is not connected. *Action* - Connect sensor wires.
4. *Potential Cause* - The air vent is closed or clogged. *Action* - Open up air vent tubing to air.
5. *Potential Cause* - The sensor is stuck in the open position (debris can affect the operation of the sensor). *Action* - Pull out sensor from holding tee, clean sensor and the inside of the tee and reinstall sensor in original position.
6. *Potential Cause* - The sensor is defective. *Action* - Contact your local Grey Flow supplier with proof of purchase.

TROUBLESHOOTING GUIDE

D. The controller LED light is flashing but the pump is not running:

1. *Potential Cause* - The pump cables are not connected properly. *Action* - Connect pump wire properly.
2. *Potential Cause* - The impeller of the pump does not rotate (large debris and hair can be the cause). *Action* - Remove pump from pit, open casing and clear all debris and hair that may be stopping the impeller from turning. Reinstall pump in its original position.
3. *Potential Cause* - The pump is defective. *Action* - Contact your local Grey Flow supplier with proof of purchase.
4. *Potential Cause* - The controller is defective. *Action* - Contact your local Grey Flow supplier with proof of purchase.

E. The controller is operating normally, all taps in the house are off, but the pump is turning on and off on regular basis:

1. *Potential Cause* - There is a tap leaking in the house. *Action* - Check if water is flowing into the interceptor trap by looking into the filter chamber. If water is detected find and fix leaky tap inside the house.
2. *Potential Cause* - The check valves on the discharge of the pump are not closing properly. *Action* - Remove check valve and thoroughly wash all parts.

F. The controller is operating normally, water in the house is off, but the pump is on all the time:

1. *Potential Cause* - The sensor wires are shorting. *Action* - Make sure that the sensor switch wires are not shorting.
2. *Potential Cause* - The sensor switch is installed in the wrong position. *Action* - Twist the sensor switch so that the white marking on the sensor stem is facing upward.
3. *Potential Cause* - The sensor switch is stuck in the close position. *Action* - Pull out sensor from holding tee, clean sensor and the inside of the tee and reinstall sensor in original position.
4. *Potential Cause* - The controller is defective. *Action* - Contact your local Grey Flow supplier with proof of purchase.

MAINTENANCE:

RECOMMENDED MAINTENANCE

To retain the original reliability and performance of the **Grey Flow 001** System the following maintenance procedure should be followed. Please ensure that you wash your hands thoroughly after contact with Grey Water or handling any part of the Grey Flow System.

The following maintenance steps should be carried out once a month and not less than every 3 months:

- A) Open top cover of the interception unit.
- B) Remove primary sponge filter and wash thoroughly in a bucket, with a garden hose or in any basin not connected to the dedicated grey water line.
- C) Open the lid of the secondary filter located in the underground pit, remove lint filter and wash thoroughly with fresh water from the same source of water as in b.
- D) Flush thoroughly the whole system by running tap water through your shower, basis or trough.
- E) The **Grey Flow 001** System is ready to operate again.

The following maintenance steps should be carried out once a year:

- A) Remove and clean primary and secondary sponge filters.
- B) Re-insert the filters (filters may need replacing on an annual basis).
- C) Unscrew the sensor switch from its location on the suction of the pipe and rinse thoroughly (ensure the system is turned off).
- D) Ensure that the sensor is still off and thoroughly flush the suction lines by pouring water through the filters. Make sure to remove all debris and hair.
- E) Re-insert and screw in sensor switch (do not change the original positioning and direction of the sensor switch).
- F) Remove & clean one way valves downstream of the pump.
- G) Turn on the pump and run water and a little chlorine through the entire system for at least five minutes.
- H) Top up mulch over the Grey Flow drip-line to a minimum depth of 4" (the Grey Flow Drip-line will need to be replaced every 5 to 8 years).

AWWS USA LIMITED CONSUMER WARRANTY

ONE YEAR LIMITED WARRANTY

AWWS USA, LLC ("AWWS") warrants this product against material defects in materials and workmanship for a period of **ONE YEAR** from the date of original retail purchase ("warranty period"). Warranty work will be done in accordance with the following terms and conditions. This warranty only benefits the original purchaser.

THIS WARRANTY COVERS ONLY DEFECTS IN MATERIAL AND WORKMANSHIP.

THIS WARRANTY DOES NOT COVER ANY OF THE FOLLOWING:

1. Expendable items that can wear out from normal use, including but not limited to, filters or similar perishable parts.
2. Damage to or failure of this System if it is not installed, operated, or maintained according to all instructions supplied with the System.
3. Damage to or failure of this System resulting from accident, abuse, misuse, or use for other than its intended purpose, Act of God.
4. Damage to or failure of parts or systems resulting incomplete or improper installation or from unauthorized modifications made to this System.
5. If you purchased the System from an unauthorized retailer or dealer.
6. Damage caused by power surges, electrical storm damage, incorrect power supply, or insect or vermin infestation.
7. Damage to or failure of parts if this System is serviced or repaired by anyone other than an Authorized Service Center.
8. This warranty extends only to you, the original purchaser. It is not transferable to anyone who subsequently purchased this product from you.
9. Use for more than a single family or use in a commercial establishment or for commercial non-household purposes.

10. Parts and Systems not supplied by AWWWS USA are not covered by this warranty.

Any item which has been repaired or replaced under this warranty shall be covered for the remainder of the original warranty as extended by the number of days that the product has been out of your hands for repair.

YOUR RESPONSIBILITY

The above limited warranties are subject to the following conditions:

You must provide your original bill of sale, invoice or other proof of purchase of the System showing that you are the original purchaser, that the purchase was made within one year of the date of your claim and that you purchased it from an authorized dealer or retailer. No warranty work will be done without this information. Keep a copy of your receipt or invoice for your own records.

These limited warranties are effective only if this System is purchased and used in the United States.

Labor and service charges for warranty repair, installation, set up, and adjustment of customer controls are not covered by these limited warranties.

Should you encounter a defect in the System, go to **WWW.AWWWS.US** to find the closest authorized service center. Contact the center and it will arrange for an inspection and corrective action, if needed and if covered by this warranty.

Should the center determine that the System is not covered by this warranty; any corrective work will be performed at your request and at your expense. If the center makes a second and/or subsequent visit and determines that there is no problem or that the System is not covered, the service call will be charged to you.

When making a warranty claim, please be prepared to provide a description of the System, your name, address, work day telephone number, a description of the problem, the date you purchased the System and the identify of the seller.

DISCLAIMER OF IMPLIED WARRANTIES; LIMITATION OF REMEDIES

1. ALL IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE YOU PURCHASED THE PRODUCT.
2. NEITHER AWWWS NOR ITS AFFILIATES ARE RESPONSIBLE OR LIABLE FOR ANY LOSS, INCONVENIENCE OR DAMAGE, WHETHER SPECIAL, EXEMPLARY, DIRECT, INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, AND WHETHER KNOWN OR SHOULD HAVE BEEN KNOWN TO AWWWS, INCLUDING DAMAGE TO OR REPLACEMENT OF OTHER EQUIPMENT AND PROPERTY AND PERSONAL INJURY RESULTING FROM ANY BREACH OF WARRANTY, THE INABILITY TO USE THE PRODUCT OR UNDER ANY LEGAL THEORY IN CONTRACT OR TORT. THESE WARRANTIES AND REMEDIES ARE THE SOLE AND EXCLUSIVE WARRANTIES AND REMEDIES GIVEN BY AWWWS IN CONNECTION WITH THE SALE AND USE OF THE PRODUCT. NO OTHER WARRANTIES, ORAL OR WRITTEN, EXPRESS OR IMPLIED ARE GIVEN.
3. IN ANY EVENT, AWWWS'S ENTIRE LIABILITY SHALL BE LIMITED TO THE ACTUAL PURCHASE PRICE YOU PAID TO THE RETAIL SELLER OF THE DEFECTIVE PRODUCT. THIS LIMITATION APPLIES WHETHER DAMAGES ARE SOUGHT OR A CLAIM MADE, UNDER THIS WARRANTY OR AS A TORT CLAIM (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), A CONTRACT CLAIM OR ANY OTHER CLAIM. THIS LIMITATION CANNOT BE WAIVED OR AMENDED BY ANY PERSON. THIS LIMITATION OF LIABILITY IS EFFECTIVE EVEN IF AWWWS OR ANY AUTHORIZED REPRESENTATIVE OF AWWWS HAS BEEN ADVISED BY YOU OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY, HOWEVER, SHALL NOT APPLY TO CLAIMS OF PERSONAL INJURY.
4. **Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, or do not allow a limitation on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. You are advised to contact applicable state laws for a full determination of your rights. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.**
5. No AWWWS dealer, agent or employee is authorized to make any modification, extension, change or amendment to this warranty.



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